

REMARKS

Entry of the foregoing and further and favorable reconsideration of the subject application, as amended, pursuant to and consistent with 37 CFR 1.112, and in the light of the remarks which follow, are respectfully requested.

By the present Amendment, Claims 11, 25, 47-48, 51-52, 59-62 have been canceled without prejudice to or disclaimer of the subject matter contained therein.. Claims 1, 2, 5, 8, 12, 22, 26, 42, 46, 53-54 and 56-58 have been amended to more clearly define the scope of protection sought, and not to acquiesce to the Examiner's rejections. Applicants reserve their rights to file a divisional application directed to the canceled subject matter. New claims 63 to 108 have been added.

Support for the amendment of Claims 1, 2, 5, 8, 22, 42, 53-54 and 56-58 to replace "eucaryotic cell" by "plant cell" can be found throughout the specification, not at least in originally filed claim 11.

Claims 12, 26 and 46 have been amended merely to change their dependency. New claims 63 to 69 are directed towards the chimeric genes recited in methods claims 1, 2, 3, 43, 44, 46 and 50 respectively (or in the corresponding plant cell claims 22, 42, 53, 54, 56 and 58). New claims 70 to 97 are directed towards methods for reducing the phenotypic expression of a nucleic acid of interest in isolated eukaryotic cells, the isolated eukaryotic cells comprising the chimeric genes of the invention and the corresponding chimeric genes as recited in the method claims. Support for these claims can be found throughout the specification, and at least in originally filed claims 1 to 10.

New claims 98 to 108 correspond to independent claims 1, 2, 22, 26, 63, 64, 70, 71, 85, 91 and 92 without the limitation that the intron sequence is heterologous to the sense nucleotide sequence. Support for this amendment can be found in the specification at least on page 23, lines 3 to 15.

Applicants submit that no new matter has been added by this amendment nor any new issue raised by this amendment, and entry thereof is respectfully requested.

Claim rejections- 35 USC §101

Claims 22, 42, 53, 54, 56 and 58 are rejected under 35 USC 101 because the claimed invention is purportedly directed to non-statutory subject matter because the claimed eukaryotic cells would encompass eukaryotic cells existing in a whole organism, including a human person. This rejection is respectfully traversed.

Without conceding to the Examiner's arguments, but solely in an effort to expedite prosecution, the rejected claims have been amended to recite "plant cells" rather than "eukaryotic cells." Consequently, the claims cannot read on a human being. Newly added claims 98 to 103 also recite plant cells.

The newly added claims 70 to 97 and 104 to 108 are directed towards methods and chimeric genes according to the invention for use in *isolated* eukaryotic cells, as well as the corresponding *isolated* eukaryotic cells, as courteously suggested by the Examiner.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

Claim rejections- 35 USC §112

Claims 1-12, 22, 25, 26, 40, 42-44, 46-48, 50-54, 56, and 58-62 are rejected under 35 USC 112, second paragraph as purportedly indefinite. This rejection is respectfully traversed.

Claims 1, 2 and 22 have been rejected for reciting the limitation "heterologous intron sequence", allegedly leaving unclear what the intron sequence is heterologous to. Without conceding to the Examiner's arguments, but solely in an effort to expedite prosecution, claims 1, 2 and 22 have been amended to recite that the intron sequence is heterologous to the region with sense nucleotide sequence. This amendment is believed to obviate the rejection. The newly added claims directed towards chimeric genes or isolated eukaryotic cells, methods for reducing the phenotypic expression of a nucleic acid of interest in such cells, and chimeric genes for use in such methods contain the same claim language. In view of the foregoing, withdrawal of this rejection is respectfully requested.

Claims 46, 48, 52, 60 and 62 are rejected as dependent upon a canceled claim. By the present amendment, claims 48, 52, 60 and 62 have been canceled, thus rendering this rejection

moot as it applied to those claims. Claim 46 has been amended to depend from claim 43. In view of the foregoing, withdrawal of this rejection is respectfully requested.

Claims 1 to 10, 40, 43, 44, 50 and 51 are rejected under 35 USC 112, first paragraph as purportedly broader in scope than the enabling disclosure provided by the specification. This rejection is respectfully traversed.

The Examiner concedes that the present specification is enabling for claims to methods of reducing the phenotypic expression of a nucleic acid of interest using a transcribed dsRNA in a eukaryotic cell *in vitro* or in a plant. However, the Examiner argues that the present specification does not reasonably provide enablement for methods of reducing the phenotypic expression of a nucleic acid of interest using a transcribed dsRNA in a eukaryotic cell *in vivo* (whole organism) in generally any eukaryotic organism, particularly in a mammal.

Applicants maintain that the claims, as originally filed, fully comply with the requirements of 35 USC 112. Nevertheless, without conceding to the Examiner's arguments, but solely to expedite the prosecution of the current application, the rejected claims have been amended to recite plant cells and plants and new claims have been added reciting isolated eukaryotic cells. In view of the Examiner's concession that such claims are enabled, withdrawal of this rejection is respectfully requested.

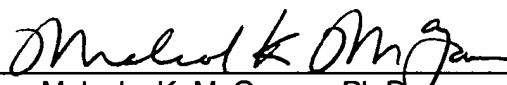
Conclusion

From the foregoing, favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

In the event that there are any questions concerning this paper, or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of the application may be expedited.

Respectfully submitted,

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Date: 7 July 2003